UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,919	02/04/2004	Joseph K. Belanoff	019904-002610US	5231

20350 7590 09/30/2008

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
JAGOE, DONNA A	
ART UNIT	PAPER NUMBER
1614	

MAIL DATE	DELIVERY MODE
09/30/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,919	BELANOFF, JOSEPH K.	
	Examiner	Art Unit	
	Donna Jagoe	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 28, 2008 has been entered.

Claims 1-11 and 15 are pending in this application.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular, "wherein the glucocorticoid receptor antagonist comprises a steroidal skeleton with at least one phenyl-containing moiety in the 11β position of the

steroidal skeleton" (present in claim 3) and "wherein the phenyl-containing moiety in the 11β position of the steroidal skeleton is a dimethylaminophenyl moiety" (present in claim 4) is a concept that was not present in the specification as originally filed. Applicants are advised that the issue here is (1) what is meant by a "steroidal skeleton" and (2) what is meant by a "phenyl-containing moiety" and a "dimethylaminophenyl moiety". There do not appear to be any examples or drawings of a steroidal skeleton to show what is included or excluded from this structure. Further, the IUPAC definition of a moiety is "a half of a molecule including substructures of functional groups". It is unclear to the examiner if there is another part of the moiety that is undisclosed or if the other half of the moiety is the "steroidal skeleton".

The specification as originally filed contains the following disclosures concerning steroidal skeletons:

> "in one aspect of the invention, the glucocorticoid receptor antagonist comprises a steroidal skeleton with at least one phenyl containing moiety in the 11-13 position of the steroidal skeleton. In one aspect, the phenyl-containing moiety in the 11-13 position of the steroidal skeleton is a dimethylaminophenyl moiety". (page 2 paragraph [0009]).

The above disclosure, however, does not provide adequate support by such descriptive means as words, structures, figures, diagrams and formula that fully set forth the glucocorticoid receptor antagonist comprising a steroidal skeleton with at least one phenyl-containing moiety in the 11β position of the steroidal skeleton" (present in claim

3) and "the phenyl-containing moiety in the 11β position of the steroidal skeleton is a dimethylaminophenyl moiety" (present in claim 4).

Written Description

An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams and formula that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997).

The Examiner is guided in her opinion that Applicant has not adequately described the presently claimed subject matter by the MPEP at § 2163 - 2163.05. In particular, while Applicant's specification as originally filed does not contain an example of what is meant by a "steroidal skeleton" or regarding the "moieties of "phenyl containing" and . "dimethylaminophenyl moiety" what other elements are included or excluded by the terms recited above. "A lack of adequate written description issue also arises if the knowledge and level of skill in the art would not permit one skilled in the art to immediately envisage the product claimed from the disclosed process. See, e.g., *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1571, 39 USPQ2d 1895, 1905 (Fed. Cir. 1996)"(emphasis added), see MPEP § 2163(I)(A). Also, "See also *In re Smith*. 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972) ('Whatever may be the viability of an inductive-deductive approach to arriving at a claimed subgenus, it cannot be said that such a subgenus is necessarily described by a genus encompassing it and a species upon which it reads.' (emphasis added)).", see MPEP § 2163.05(II).

Considering the teachings provided in the specification as originally filed, the

Examiner finds that Applicants have failed to provide the necessary teachings, by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams and formula that fully set for the claimed invention, in such a way as to reasonably convey to one skilled in the relevant art that Applicants had possession of the concept of a "steroidal skeleton" with at least one "phenyl containing moiety" in the 11-13 position of the steroidal skeleton and the phenyl-containing moiety in the 11-13 position of the steroidal skeleton is a "dimethylaminophenyl moiety".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. 103(a) as being obvious over Schatzberg et al U.S. Patent No. 6,150,349.

Schatzberg et al. teach glucocorticoid receptor antagonists (GR antagonist) (see abstract), specifically, those GR antagonists can comprise a steroidal skeleton with at least one phenyl (e.g. dimethylaminophenyl) containing moiety in the 11 β position of the steroidal skeleton, for example, RU 486, RU009 and RU044, for the treatment of psychosis in a patient in need thereof (column 3, lines 56-64). Further, Schatzberg et al. teach a condition or illness involving psychosis can be classified as a psychotic disorder not otherwise specified. According to DSM IV criteria, this category includes psychotic symptomology (i.e. delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior) about which there is inadequate information to make a specific diagnosis or about which there is contradictory information, or disorders with psychotic symptoms that do not meet the criteria for any specific psychotic disorder. Examples include**: postpartum psychosis** that does not meet other DSM IV categories; psychotic symptoms that have lasted for less than one month but have not yet remitted; persistent auditory hallucinations in the absence of other features; persistent nonbizarre delusions with period of overlapping mood episodes that have been present for a substantial portion of the delusional disturbance; and, situations in which the clinician has concluded that a psychotic disorder is present but is unable to determine whether it is primary, due to general medical condition or is substance-induced (column 15, lines 46-64).

It would have been obvious to employ the recited GR antagonists for amelioration of the symptoms of postpartum psychosis motivated by the teaching of Schatzberg et al. who teach that GR antagonists ameliorate psychosis and according to

Schatzberg et al. the DSM IV includes postpartum psychosis in its categorization of the symptomology of psychosis in general.

Schatzberg et al. teach daily administration orally and transdermally (column 18, lines 16-29).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schatzberg et al. as applied to claims 1-11 above, and further in view of Belanoff et al. (U)

Schatzberg et al. teach glucocorticoid receptor antagonists (GR antagonist), specifically, mifepristone (RU 486) (see abstract) for the treatment of psychosis in a patient in need thereof (see, for example, claim 1). Further, Schatzberg et al. teach a condition or illness involving psychosis can be classified as a psychotic disorder not otherwise specified. According to DSM IV criteria, this category includes psychotic symptomology (i.e. delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior) about which there is inadequate information to make a specific diagnosis or about which there is contradictory information, or disorders with psychotic symptoms that do not meet the criteria for any specific psychotic disorder. Examples include: **postpartum psychosis** that does not meet other DSM IV categories; psychotic symptoms that have lasted for less than one month but have not yet remitted; persistent auditory hallucinations in the absence of other features; persistent nonbizarre delusions with period of overlapping mood episodes that have been present for a substantial portion of the delusional disturbance; and, situations in which the clinician has

concluded that a psychotic disorder is present but is unable to determine whether it is primary, due to general medical condition or is substance-induced (column 15, lines 46-64).

Schatzberg et al. does not teach the GR antagonist is a "specific" GR antagonist.

Belanoff et al. teach that mifepristone is a specific GR antagonist (see page 164, column 2).

It would have been made obvious to one of ordinary skill in art at the time it was made to employ a specific GR antagonist for amelioration of the symptoms of postpartum psychosis motivated by the teaching of Schatzberg et al. who teach that GR antagonists ameliorate psychosis and according to Schatzberg et al. the DSM IV includes postpartum psychosis in its categorization of the symptomology of psychosis in general an further in view of Belanoff et al. who teach mifepristone is a specific GR antagonist.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. 103(a) as being obvious over Schatzberg et al. U.S. Patent No. 6,362,173.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject

matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Schatzberg et al. teach glucocorticoid receptor antagonists (GR antagonist) (see abstract), specifically, those GR antagonists can comprise a steroidal skeleton with at least one phenyl (e.g. dimethylaminophenyl) containing moiety in the 11 β position of the steroidal skeleton, for example, RU 486, RU009 and RU044, for the treatment of psychosis in a patient in need thereof (column 1, lines 25-37). Further, Schatzberg et al. teach a condition or illness involving psychosis can be classified as a psychotic disorder not otherwise specified. According to DSM IV criteria, this category includes psychotic symptomology (i.e. delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior) about which there is inadequate information to make a specific diagnosis or about which there is contradictory information, or disorders with psychotic symptoms that do not meet the criteria for any specific psychotic disorder. Examples include**: postpartum psychosis** that does not meet other DSM IV categories; psychotic symptoms that have lasted for less than one month but have not yet remitted; persistent auditory hallucinations in the absence of other features;

persistent nonbizarre delusions with period of overlapping mood episodes that have been present for a substantial portion of the delusional disturbance; and, situations in which the clinician has concluded that a psychotic disorder is present but is unable to determine whether it is primary, due to general medical condition or is substance-induced (column 15, lines 36-54).

It would have been obvious to employ the recited GR antagonists for amelioration of the symptoms of postpartum psychosis motivated by the teaching of Schatzberg et al. who teach that GR antagonists ameliorate psychosis and according to Schatzberg et al. the DSM IV includes postpartum psychosis in its categorization of the symptomology of psychosis in general.

Schatzberg et al. teach daily administration orally and transdermally (column 18, lines 5-18).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schatzberg et al. as applied to claims 1-11 above, and further in view of Belanoff et al. (U).

Schatzberg et al. teach glucocorticoid receptor antagonists (GR antagonist), specifically, mifepristone (RU 486) (column 1, lines 25-37)) for the treatment of psychosis in a patient in need thereof (see, for example, claim 1). Further, Schatzberg et al. teach a condition or illness involving psychosis can be classified as a psychotic disorder not otherwise specified. According to DSM IV criteria, this category includes psychotic symptomology (i.e. delusions, hallucinations, disorganized speech, grossly

disorganized or catatonic behavior) about which there is inadequate information to make a specific diagnosis or about which there is contradictory information, or disorders with psychotic symptoms that do not meet the criteria for any specific psychotic disorder. Examples include**: postpartum psychosis** that does not meet other DSM IV categories; psychotic symptoms that have lasted for less than one month but have not yet remitted; persistent auditory hallucinations in the absence of other features; persistent nonbizarre delusions with period of overlapping mood episodes that have been present for a substantial portion of the delusional disturbance; and, situations in which the clinician has concluded that a psychotic disorder is present but is unable to determine whether it is primary, due to general medical condition or is substance-induced (column 15, lines 46-64).

Schatzberg et al. does not teach the GR antagonist is a "specific" GR antagonist.

Belanoff et al. teach that mifepristone is a specific GR antagonist (see page 164, column 2).

It would have been made obvious to one of ordinary skill in art at the time it was made to employ a specific GR antagonist for amelioration of the symptoms of postpartum psychosis motivated by the teaching of Schatzberg et al. who teach that GR antagonists ameliorate psychosis and according to Schatzberg et al. the DSM IV includes postpartum psychosis in its categorization of the symptomology of psychosis in general an further in view of Belanoff et al. who teach mifepristone is a specific GR antagonist.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schatzberg et al U.S. Patent No. 6,150,349, in view of Stowe et al, in view of Bradley et al, (PTO-892 dated 9/20/2007, J. Med. Chem. 45, 2417-2424 (2002)).

Schatzberg et al and STOWE et al do not teach when the specific glucocorticoid receptor antagonists listed in claim 7.

Bradley et al, J. Med. Chem. 45, 2417-2424 (2002) teach GR antagonist compounds (see title, abstract, and pg 2417 first full paragraph) 4α(S)-Benzyl-2(R)-prop-l-ynyl- 1,2,3,4,4α,9,10,10α(R)-octahydro-phenanthrene-2,7-diol diol (pg 2421 3rd full paragraph)and 4α(S)-Benzyl-2(R)- chloroethynyl-1,2,3,4,4α,9,10,10α(R)-octahydro-phenanthrene-2,7-diol (pg 2421 2nd full paragraph).

Someone of ordinary skill in the art would recognize the ability to substitute compounds that have the same glucocorticoid receptor antagonistic properties, and which would have an obvious reasonable expectation of success.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schatzberg, et al U.S. Patent No. 6,150,349, in view of Stowe et al, in view of Gebhard (PTO-892 dated 9/20/2007, US 6,011,025).

Schatzberg et al and Stowe et al do not teach when the specific glucocorticoid receptor antagonists listed in claim 8.

Gebhard claims the glucocorticoid receptor antagonist (11β,17β)- 11-(1,3-benzodioxol-5-yl)-17-hydroxy-17-(1 -propynyl)estra-4,9-dien-3-one (see abstract and claim 6).

Therefore, someone of ordinary skill in the art would recognize the ability to substitute compounds that have the same glucocorticoid receptor antagonistic properties and would have a reasonable expectation of success.

Thus the claims fail to patentably distinguish over the state of the art as represented by the cited references.

Accordingly, for the above reasons, the claims are deemed properly rejected and none are allowed.

Response to Arguments

The examiner assigned to the instant application has changed. The new Examiner is Donna Jagoe. Contact information is provided at the end of this office action.

Applicant's arguments with respect to claims 1-6, 9-11 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Regarding Applicants assertion that the amendment to claim 1 renders the instant claims patentable, Schatzberg '349 teach treatment of psychotic disorders included in the DSM-IV and further teach that postpartum psychosis is included in a condition or illness involving psychosis that can be classified as a psychotic disorder not otherwise specified. Accordingly it would have been obvious to employ GR antagonists to treat psychotic disorders, including those resulting from post partum psychosis.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna Jagoe whose telephone number is (571) 272-0576. The examiner can normally be reached on Monday through Friday from 8:00 A.M. - 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Donna Jagoe /D. J./
Examiner
Art Unit 1614

September 22, 2008

/Ardin Marschel/
Supervisory Patent Examiner, Art Unit 1614